

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A porous insulating film consisting essentially of a highly heat resistant polyimide resin film having a fine porous structure wherein:

a) fine continuous channels reaching to both surfaces of the film in a nonlinear fashion have a mean pore size of $0.01 - 5 \mu\text{m}$ in ~~at least one surface~~ the center and both surfaces of the film and a porosity of 15 – 80%; and

b) the polyimide resin film consists essentially of a polyimide obtained from the combination of at least one tetracarboxylic acid component and a diamine component.

2. (Original) A porous insulating film according to claim 1, wherein the mean pore size is $0.05 - 1 \mu\text{m}$.

3. (Original) A porous insulating film according to claim 1, wherein the porosity is 30-80%.

DS 4. (Original) A porous insulating film according to claim 1, which has a thickness of $5 - 150 \mu\text{m}$.

5. (Canceled) ✓

6. (Original) A porous insulating film according to claim 1, which is fabricated by a film casting method.

7. (Original) A porous insulating film according to claim 1, wherein the dielectric constant is no greater than 2.5.

8.-9. (Canceled) ✓

10. (Currently amended) A porous insulating film consisting essentially of a highly heat resistant polyimide resin film having a fine porous structure wherein:

a) fine continuous channels reaching to both surfaces of the film in a nonlinear fashion have a mean pore size of 0.01 - 5 μm in ~~at least one surface~~ the center and both surfaces of the film; and

b) the polyimide resin film consists essentially of a polyimide obtained from the combination of at least one tetracarboxylic acid component and a diamine component and has

- (i) a thickness of 5 - 100 μm ,
- (ii) a resistance to passage of air of from 30 sec/100 cc to 2000 sec/100 cc,
- (iii) a heat resistance temperature of at least 200°C and
- (iv) a heat shrinkage of greater than $\pm 1\%$ at 105°C.

11. (Canceled) ✓

X 12. - 14 (Withdrawn)

15. (Previously added) A battery separator comprising a porous insulating film according to claim 10.

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Cont 16. (Previously added) A porous insulating film according to claim 1 or 10, wherein the tetracarboxylic acid component is selected from a biphenyltetracarboxylic dianhydride, pyromellitic dianhydride and a benzophenonetetracarboxylic dianhydride.

17. (Previously added) A porous insulating film according to claim 1 or 10, wherein the diamine component is selected from a phenylenediamine or a diaminodiphenylether.

18. (Previously added) A porous insulating film according to claim 1, wherein the pores in the porous structure are arranged in the film substantially parallel to the film surfaces.

19. (Previously added) A porous insulating film according to claim 16, wherein the biphenyltetracarboxylic dianhydride is 3,3',4,4'-biphenyltetracarboxylic dianhydride.

20. (Previously added) A porous insulating film according to claim 10, wherein the pores
in the porous structure are arranged in the film substantially parallel to the film surfaces.
